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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,132	10/31/2003	David Berman	ARC920030065US1	5004
35987	7590	02/08/2006	EXAMINER	
JOSEPH P. CURTIN 1469 N.W. MORGAN LANE PORTLAND, OR 97229			MERCEDES, DISMERY E	
			ART UNIT	PAPER NUMBER
			2651	
DATE MAILED: 02/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/699,132	Applicant(s) BERMAN ET AL.	
	Examiner Dismery E. Mercedes	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,2,4-9,12,15,18-23,25-26,28-29 and 32-36 is/are rejected.
 7) ☒ Claim(s) 3,10,11,13,14,16,17,24,27,30 and 31 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/31/2003 being considered by the examiner.

Claim Objections

2. Claim 28 objected to because of the following informalities: duplicate claim of claim 26, from which claims dependency. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1,8,20,22,33 are rejected under 35 U.S.C. 102(b) as being anticipated by Du et al. (US 6,108,152).

As to Claim 1, Du et al. discloses a magnetic medium having a recording format therein, the format comprising: a plurality of user data fields each having a predetermined length; and at least one control field, each control field being arranged between two user data fields and containing at least one transition (as depicted in Figs. 4-3, 5-1 and 8-1 and respective description in the spec).

As to Claim 8, Du et al. further discloses detecting a readback signal recorded on a magnetic medium, the readback signal containing a plurality of user data fields each having a predetermined length, and at least one control field, each control field being arranged between two user data fields

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and containing at least one transition; and adjusting at least one selected readback channel parameter based on information contained in at least one control field (as depicted in Figs. 4-3, 5-1 and 8-1 and respective description in the spec and col.9, lines 1-3; col.9, line 40-col.10, line 34).

As to Claim 20, Du et al. further discloses wherein said adjusting at least one selected readback parameter includes optimizing at least one selected readback channel parameter based on information contained in at least one control field (col.12, lines 27-56).

As to Claims 22,33 are apparatus claims drawn to the method claims 8,20, therefore are rejected for similar reasons as set forth in the rejection of claims 8,20, above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2,4,6-7,9,12,15,18,19,21,23,25, 29, 32,34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. in view of Abbott et al. (US 5,422,760).

As to Claim 2, Du et al. discloses the medium as claimed in parent claim 1, but failed to specifically disclose wherein at least one control field contains a first portion having a predetermined number of zeroes preceding a portion containing each transition of the control field, which precedes a second portion having the predetermined number of zeroes. However, Abbott et al. discloses such (as depicted in Fig.42A-42B, sync field). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the medium as disclosed by Du et al.

with the above teachings of Abbot et al. the motivation being to decrease false detection in the decoding process (as taught by Abbot et al., col.43, lines 51-53).

As to Claim 4, Abbot et al. further discloses wherein at least one control field contains a transition having a predetermined amplitude (as depicted in Fig.6 and Fig.42A-42B).

As to Claim 6, Abbot et al. further discloses wherein at least one control field contains two transitions and wherein each transition has a predetermined amplitude (as depicted in Fig.42A-42B-preamble).

As to claim 7, Abbot et al. further discloses wherein each control field has a predetermined length (see Fig.5-6 and respective description in the spec).

As to Claim 9, has limitations similar to those treated in the above rejection of claim 2, and are met by the references as discussed above.

As to Claim 12, Abbot et al. further discloses wherein at least one control field contains a transition having a predetermined amplitude, wherein the selected readback channel parameter is a gain of the readback signal, and wherein said adjusting includes adjusting the gain of the readback signal based on the predetermined amplitude of the transition in each control field (see Figs. 21, 42A-42B & col.34, lines 59-col.37, line 40).

As to Claim 15, has limitations similar as to those treated in the above rejection of claim 12, and are met the references as discussed above. However, 15 recite the limitation: at least one control field contains two transitions and each transition has a predetermined amplitude, which is disclosed by Abbot et al. in Figs.42A-42B.

As to Claim 18, Abbot et al. further discloses wherein at least one control field contains a transition having a predetermined amplitude, wherein the selected readback channel parameter is a equalization response of the readback signal, and wherein said adjusting includes adjusting the

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equalization response of the readback signal based on the predetermined amplitude of the transition in each control field (as depicted in Figs.4 & 48,"40" & col.10, lines 1-26; col.12, line 30-col.13, line 30; col.35, lines 1-5).

As to Claim 19, Abbot et al. further discloses recording the readback signal on the magnetic medium (as depicted in Figs. 5-6).

As to Claim 21, has similar limitations as to those treated in the above rejection of claim 7 and are met by the reference as discussed above.

As to Claims 23,25, 29, 32,34-36 are apparatus claims drawn to the method claims 9,12,15,18-19,21, therefore are rejected for similar reasons as set forth in the rejection of claims 9,12,15,18-19,21, above.

As to claim 26 & 28, abbot et al. further discloses wherein the readback channel system clock is adjusted by adjusting at least one of a frequency and a phase of the readback channel system clock (col.12, line 30-col.13, line 30 and col.26, lines 14-60).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. in view of Romano et al. (US 5,576,910).

As to Claim 5, Du et al. discloses the medium as claimed in claim 1, but failed to specifically disclose wherein at least one control field contains a dibit. However, Romano et al. discloses such (col.6, line 30-col.7, line 21; col.). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the medium as disclosed by Du et al. with the above teachings of Romano et al. since is well known in the art to encode information as dibits for positioning control (see background of Romano et al.).

Allowable Subject Matter

8. Claims 3,10-11,13-14,16-17,24,27,30-31 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kawai (US 5,748,401);Teng et al. (US 2002/0060870 A1);Sloan et al. (US 6,252,731);Dobbek et al. (US 6,429,995);Cowen (US 5,760,983);Nguyen et al. (US 6,266,202); Cheung et al. (US 5,825,579).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600